

Application No. 10/776,319
Amendment dated November 18, 2005
Reply to Office Action of August 19, 2005

Amendments to the Specification:

For simplicity, all citations to the specification will refer to the paragraph numbers used in the application's Patent Application Publication, US 2004/0160360A1.

Please replace paragraph [0020], with the following amended paragraph:

[0020] where (x_k, y_k, z_k) is position coordinate information of a k-th satellite, x_k is an Earth-Centered, Earth-Fixed (ECEF) X-axis coordinate after the lapse of a predetermined time t_k indicative of time variance, y_k is a ECEF Y-axis coordinate after the lapse of t_k , z_k is a ECEF Z-axis coordinate after the lapse of t_k , x_p is a satellite position in an orbital plane ~~an X-axis component of the satellite velocity~~, y_p is a satellite position in an orbital plane ~~Y-axis component of the satellite velocity~~, z_p is a ~~Z-axis component of the satellite velocity~~, Ω is an argument of perigee, and i_k is a variation in inclination angle of a satellite orbit after the lapse of t_k .

Please replace Equation 20 located between paragraph [0092] and paragraph [0093], with the following amended Equation 20:

$$\begin{aligned} \underline{PVsvPRsv_gpsrv} | Tc &= \underline{RVsvRRsv_gpsrv} | Tc + Error | Tc \\ \underline{PVsvPRsv_bts} | Ta &= \underline{RVsvRRsv_bts} | Ta + Error | Ta \end{aligned}$$

Application No. 10/776,319
Amendment dated November 18, 2005
Reply to Office Action of August 19, 2005

Please replace Equation 21 located between paragraph [0093] and paragraph [0094], with the following amended Equation 21:

$$\underline{PVsvPRsv_bts | Ta} = \underline{PVsvPRsv_gpsrv | Tc} + (\underline{PVsvPRsv_bts | Ta} - \underline{PVsvPRsv_gpsrv | Tc})$$

Please replace paragraph [0106], with the following amended paragraph:

[0106] The pseudo velocity calculator 340 calculates a pseudo velocity using only a velocity component directed to the MS 100 from among a plurality of satellite velocity components of step 915 at step 920. Therefore, the satellite pseudo velocity can be calculated using Equations 19 and 20. The satellite pseudo velocity is calculated between the MS and each satellite observed by the MS at a position measurement time of the MS using the velocities of the satellites.